Fort Richardson NPL

Size: 64.470 acres

Mission: Support and sustain forces assigned to U.S. Army Alaska

HRS Score: 50.00; placed on NPL in May 1994

IAG Status: Federal Facility Agreement signed in December 1994

Contaminants: White phosphorus, PCBs, heavy metals, petroleum/oil/lubricants.

solvents, dioxins, chemical agents, UXO, explosives, and pesticides

Media Affected: Groundwater, surface water, sediment, and soil

Funding to Date: \$62.0 million

Estimated Cost to Completion (Completion Year): \$22.8 million (FY2009)
Final Remedy in Place or Response Complete Date for All Sites: FY2009



Anchorage, Alaska

Restoration Background

Since World War II, Fort Richardson has supported combat unit training and operations. These activities contaminated soil, surface water, sediment, and groundwater with petroleum/oil/lubricants (POL), solvents, and polychlorinated biphenyls (PCBs). Parts of a 2,500-acre wetland serving as an ordnance impact area are contaminated with white phosphorus.

Preliminary Assessments and Site Inspections completed in FY83 identified 38 contaminated sites. Removal Actions have addressed PCB contamination in soil, underground storage tank (UST) sites, two drum burial sites, and more than 4,000 cubic yards of soil contaminated with volatile organic compounds (VOCs) and chemical agents. The Army also treated 20,000 cubic yards of POL-contaminated soil by thermal desorption.

In FY88, the installation and regulatory agencies established a Cooperative Agreement, forming the Eagle River Flats Task Force (now the Eagle River Flats Biological Technical Advisory Group). Under a Memorandum of Agreement with the Cold Region Research and Engineering Laboratory, several agencies conduct research to satisfy CERCLA requirements and develop cleanup techniques for the Eagle River Flats ordnance impact area.

In FY95, the installation conducted Remedial Investigations (RIs) for Operable Unit (OU) A, to address three potential source areas, and for OU B, a former disposal site for chemical agent identification sets and other small munitions. The Army installed groundwater monitoring wells in the disposal area after a geophysical survey identified potential subsurface anomalies. The installation conducted a focused Treatability Study (TS) for dredging white phosphorus contamination at OU C, the Eagle River Flats Area, and completed a preliminary source evaluation in OU D at nine potential source areas.

The Army completed groundwater sampling at OU B and OU A and submitted draft RI and Feasibility Studies (FSs) to EPA. The installation initiated a pond draining and pumping TS for OU C. Evaluations of petroleum sites were completed under the restoration agreement between the State of Alaska and the Army. More than 20 sites required no further action with negotiated alternate cleanup levels

In FY97, the installation completed a TS involving heat-enhanced soil vapor extraction (SVE) at OU B. It also completed the RI/FS for OU C and the RI for OU D. Records of Decision (RODs) for OUs A and B were completed and signed.

FY98 Restoration Progress

The installation established a Restoration Advisory Board (RAB), and quarterly meetings began in October 1997. The RAB participated in document review and submitted comments. It also toured Fort Richardson's contaminated sites.

The installation completed a postwide risk assessment and incorporated the results into the OU D RI/FS report. It also successfully drained six ponds, reducing white phosphorus levels in the ponds. The installation signed a ROD for OU C.

A unique 6-phase soil heating system proved extremely effective in removing chlorinated compounds from soil at the Poleline Road Disposal Area. This technique resulted in 93 to 100 percent removal rates from a hot spot of heavily contaminated soil in 6 weeks of treatment. The Army expects that additional treatments conducted during FY98 will significantly reduce the time required to treat the hot spot using dual-phase high vacuum extraction of soil and shallow groundwater. The Army remediated two stockpiles of solvent-contaminated soil excavated from the Poleline Road Disposal Area in

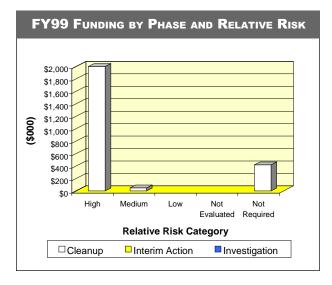
1993 and 1994 using heat-enhanced SVE.

The installation installed SVE systems to remove POL contamination at Ruff Road and the Building 986 POL Laboratory dry well; both are former OU A sites that are now part of the State of Alaska–Fort Richardson Non-UST Petroleum Agreement.

Fort Richardson continues to work effectively with the state and EPA Region 10. Remedial project managers meet at least quarterly and communicate daily on issues affecting site investigations or cleanup. Both state and federal regulatory agencies have been involved with the U.S. Army Alaska's initiative to develop standard operating procedures for the management of institutional controls on Armycontrolled property in Alaska.

Plan of Action

- · Complete and sign the OU D ROD in FY99
- Design and install the OU B dual-phase vacuum extraction system in FY99
- Continue draining and pumping of ponds at OU C in FY99
- Complete SVE remediation at former OU A POL sites in FY99
- Conduct quarterly RAB meetings and another site tour in FY99 and FY00



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